REMARKS

The present amendment is submitted in response to the Office Action dated February 27, 2008, which set a three-month period for response. Filed herewith is a Request for a Two-month Extension of Time, making this amendment due by July 27, 2008.

Claims 1-10 are pending in this application.

In the Office Action, the specification and claim 10 were objected to for various informalities. Claims 1, 7, and 8 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,835,053 to Davis. Claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of U.S. Patent No. 3,815,016 to Nix et al. Claims 3, 9 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Nix and further in view of U.S. Patent No. 5,904,210 to Stump et al. Claims 4, 5, and 6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of U.S. Patent No. 6,496,136 to Mucciardi.

In the present amendment, the specification and claim 10 were amended to address the noted objections.

The Applicants respectfully disagree that the cited references anticipate or render obvious the present invention as defined in claims 1-10.

As defined in claim 9, the present invention relates to a device with at least one high-frequency measuring device (12) capable of being placed on a surface (14) of a material (10), with at least one high-frequency transmitter (24)

and a high-frequency receiver (38). The device further includes a transponder (40, 140, 240, 340) *capable of being moved relative to this high-frequency measuring device*.

A system, in which a high frequency signal is transmitted via a high frequency measuring device, which is reflected via a transponder and is again detected by the high frequency measuring device, is not disclosed by the cited reference to Davis. In particular, Davis fails to disclose performing a plurality of measurements, with which the relative position of the high frequency measuring device and transponder are varied relative to one another.

With the method of claim 1 for determining the thickness of a material by penetrating the material, the material thickness d of a material is measured *via at least two transit-time measurements* of the measurement signal performed at various positions (20, 22) of the high-frequency transmitter (24) and/or the high-frequency receiver (34). In contrast to the device disclosed in Davis, the transmit time measurements of the measurement signal is determined ***for different positions of the high frequency transmitter and/or the high frequency receiver***. Thus, the system of the present invention operates with ***one*** high frequency transmitter and ***one*** high frequency receiver. For a first position of the high frequency transmitter (and/or the high frequency receiver), a first transmit time measurement is performed. Then, ***the position of the high frequency transmitter (and/or the high frequency receiver) is changed*** and a second transmit time measurement of the measurement signal is performed with the same high frequency transmitter and the same high frequency receiver. From

these two transmit time measurements of the measurement signal, measured for different positions of the high frequency transmitter (and/or the high frequency receiver), the material thickness is determined.

In contrast, the method in Davis functions at a constant position of the high frequency transmitter and high frequency receiver. With the Davis device, a measurement signal is transmitted into the material to be examined via a high frequency transmitter and the signal reflected at different planes is measured via a plurality of high frequency receivers, which form a linear "array". By means of the different transmit times of the signals transmitted from the high frequency transmitter to the individual antennae of the high frequency receivers, the material thickness of the material can be determined. Since the high frequency receiver has a plurality of receiving sensors, it is not necessary in the Davis device to vary the position of the high frequency transmitter or the high frequency receiver.

A method, which determines the material thickness d of a material from at least two transmit time measurements of the measurement signal measured for different positions of the high frequency transmitter and/or the high frequency receiver, is not disclosed by Davis or any of the other cited references.

The claimed method of the present invention offers the advantage that only a single antenna is required as the high frequency transmitter and only a single antenna is required as the high frequency receiver. The use of a high frequency receiver with a plurality of antenna elements for receiving a measurement signal with different transmit times is not necessary with either the

method or device of the present invention, since the measurement system varies its position.

In particular, it should be noted that the additional antenna system 4 which is disclosed in Davis ("the higher frequency air-launched assembly") does not anticipate or render obvious the method of the present invention, specifically, measuring the material thickness of material fro at least two transmit time measurements of the measurement signal, measured for different positions of the high frequency transmitter (and/or of the high frequency receiver). In addition, Davis discloses that this system 4 ("the higher frequency air-launched assembly"), alone is NOT suitable for achieving a reliable material thickness determination (see in particular Davis, column 8, from line 9).

Because claim 1 includes features that are not disclosed by Davis, the rejection under Section 102 must be withdrawn. The Applicants furthermore respectfully submit that Davis is not a proper reference under 35 USC 102 pursuant to the guidelines set forth in the last paragraph of MPEP section 2131, where it is stated that "a claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference", and that "the identical invention must be shown in as complete detail as is contained in the ... claim".

The application in its amended state is believed to be in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any further comments or suggestions, the undersigned would

very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,

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